

Predicting the Productivity of Argument Structure Constructions

Productivity has been a much-debated concept within morphology and word formation for years, while syntactic productivity has received little attention within the research community. In mainstream syntax, the concept of syntactic productivity is focused on speakers' ability to generate sentences never encountered before. This notion of productivity captures what has been labeled Linguistic Competence within the generative paradigm but does not address the interesting question of how case and argument structure constructions are extended to new verbs. These two concepts have sometimes been distinguished as "syntactic productivity" and "syntactic creativity", respectively (cf. Fillmore 2002, Kay 2002). No attempts to give a unified and coherent analysis of both can be found so far in the existing literature.

I argue that a usage-based construction grammar which takes argument structure constructions to exist at different levels of schematicity (Langacker 1988, 2000, Bybee 1995, Barðdal 2001, 2006, Croft 2003) offers such an account. Following Clausner & Croft (1997), I argue that productivity is a function of type frequency and coherence (i.e. internal consistency). On this view the productivity of argument structure constructions is predictable from their type frequency and semantic coherence, and the inverse correlation between the two. This means that the higher the type frequency, the lower degree of semantic coherence is needed among the verbs instantiating an argument structure construction in order for it to be extended to new verbs. And as its corollary, the lower the type frequency of an argument structure construction, the higher degree of semantic coherence is needed for it to be extended.

On this usage-based bottom-up approach, argument structure constructions are form-meaning correspondences that exist at all levels of the lexicality–schematicity continuum, i.e. as low-level lexically filled verb-specific constructions, as verb-subclass-specific constructions, as verb-class specific constructions, and if their type frequency is high enough, as more schematic event-type constructions. Hence, all argument structure constructions exist as verb-specific constructions at the lowest level of the lexicality–schematicity continuum, while their highest level of schematicity depends on their type frequency and level of generality, thus varying for different argument structure constructions, resulting in differences in productivity. This approach presupposes a careful semantic analysis of argument structure constructions and categorization of the verb-specific constructions into subclasses, into more general classes of event types, and into all the intermediate levels of schematicity at which each argument structure construction can be assumed to exist in speakers' minds (cf. Barðdal 2007). I will substantiate my claims with an analysis of new and borrowed verbs in Icelandic, particularly from the area of information technology, and the case and argument structure constructions speakers assign to them. As is expected, a comparison with the schematicity levels of existing argument structure constructions in Icelandic reveals a correlation between these and the frequency figures obtained for the argument structure constructions speakers assign to new and borrowed verbs.

My findings reveal that the most frequent and general argument structure construction, like the ordinary Nom-Acc construction, is extended most to new verbs, while on the other end of the cline, the least frequent construction is only productive in the case of a high degree of semantic overlap, since constructions like that only exist at a verb-specific level. Such coinages, however, are usually taken to be the result of analogy, and have not been considered as productivity. On the current approach, these two represent the extreme poles of the productivity cline, or two sides of the same coin. From this view, both the classical definition of full productivity and the narrower concept of analogy can be derived, as well as different degrees of productivity.

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